ABSTRACT

A process for efficiently producing a poly(methyl methacrylate)-metal cluster composite, a patterning material obtainable by the process, and its patterning method are provided. The poly(methyl methacrylate)-metal cluster composite is obtained by bringing a poly(methyl methacrylate) base plate having an ultraviolet-irradiated portion into contact with vapor of a heavy metal compound to form heavy metal nanoparticles on the ultraviolet-irradiated portion.